

Notice of Allowability

Application No.

10/772,279

Examiner

Vincent E. Kovalick

Applicant(s)

TAOKA ET AL.

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant's amendment dated 5/2/07.
2. ☒ The allowed claim(s) is/are 5-16 and 19-20 (re-numbered 1-14).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to Applicant's Amendment dated May 2, 2007 in response to USPTO Office Action dated February 7, 2007.

The cancellation of claims 1-4 and 17-18 and the merit of Applicant's remarks are sufficient to place the application in a condition for allowance as set forth hereinbelow.

Allowable Subject Matter

2. Claim 5-16 and 19-20 are allowed.

3. The following is an examiner's statement of reasons for allowance:

Relative to claim 5, the major difference between the teachings of the prior art of record (USP 6,115,016, Yoshihara et al.: Pub. No. US 2001/005286, Ikeda and USP 6040812 Lewis) and that of the instant invention is that said prior art of record **does not teach** a data write circuit, for driving a hold-type display apparatus, which includes means for writing in a first period n times a desired pixel value to be written to a pixel and writing zero in a second period and thereafter where a frame period corresponding to a frame is divided into n parts and each divided period is denoted by first to n th period; n being an integer greater than or equal to 2.

Relative to claim 7, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** a data write circuit, for driving a hold-type display apparatus, which includes means for writing in an i th period ($2 \leq i < n$) n times a desired pixel value to be written to a pixel and writing zero in periods other than the i th period where a frame period corresponding to a flame is divided into n parts and each divided period is denoted by first to n th period; n being an integer greater than or equal to 2.

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Relative to claim 19, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** a hold-type display apparatus, including: a pixel array; a data write circuit, for writing data to said pixel array in a row direction, which includes means for writing in a first period n times a desired pixel value to be written to a pixel and writing 0 (zero) in a second period and thereafter where a frame period is divided into n parts and each divided period is denoted by first to n th period (n being an integer greater than or equal to 2); and a scanning line drive circuit which scans said pixel array in a column direction.

Relative to claim 20, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** a hold-type display apparatus, including: a pixel array; a data write circuit, for writing data to said pixel array in a row direction, which includes means for writing in an i th period ($2 \leq i < n$) n times a desired pixel value to be written to a pixel and writing zero in periods other than the i th period where a frame period is divided into n parts and each divided period is denoted by first to n th period; n being an integer greater than or equal to 2; and scanning line drive circuit which scans said pixel array in a column direction.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No.	6,545,656	Yamazaki
U. S. Patent No.	6,452,589	McKnight
Pub. No.	US 2003/0011738	Yoshihara et al.
Pub. No.	US 2002/0000960	Yoshihara et al.

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To Respond

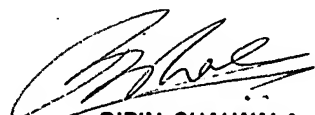
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E. Kovalick whose telephone number is 571-272-7669. The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Vincent E. Kovalick
May 25, 2007



BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600